Dr. Arindam Biswas, M.Sc. Ph.D.

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ACADEMIC QUALIFICATION

Ph.D. (2011) : Genetics, University of Calcutta
M.Sc. (2001) : Biochemistry, University of Calcutta
B.Sc. (1999) : Chemistry, University of Calcutta

PROFESSIONAL EXPERIENCE

Research Associate (2011 – 2015) : University of Calcutta
Post-Doctoral Fellow (2016 – 2018) : University of Calcutta
Post-Doctoral Fellow (2019 – 2021) : National Neurosciences Centre, Calcutta
Scientific Officer (2021 – 2022) : Nil Ratan Sircar Medical College & Hospital, Kolkata
Research Scientist (2022 – 2025) : National Neurosciences Centre, Calcutta
Research Associate & Teaching Assistant: School of Biological Sciences, Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI), West Bengal, India

PROFESSIONAL RECOGNITION/ AWARD/ PRIZE

Post-Doctoral Fellowship (2019) : DST-CSRI, Govt. of India
Research Associateship (2018) : ICMR, Govt. of India
Best Poster Presented Award (2017) : International Conference on Advances in Dementia & XXI National Conference of ARDSI
Best Poster Presented Award (2016) : 1st Movement Disorder Society of India Conference
Best Poster Presented Award (2016) : 29th Annual Conference of Association of Neuroscientist of Eastern India
Post-Doctoral Fellowship (2015) : DST-CSRI, Govt. of India
Best Paper Presented Award (2014) : International Update on Movement Disorder
Senior Research Fellowship (2008) : ICMR, Govt. of India

PUBLICATIONS: National and International Journals: **38;** Book chapters: **3**
h-index: 10; **Citations:** 309

SELECTED PUBLICATIONS

- Genetic Variants and Alteration in *Transcription Factor 7-Like 2 (TCF7L2)* mRNA level in Ischemic Stroke Patients: An Indian Scenario. Biochemical Genetics 2025. doi:10.1007/s10528-025-11237-6.
- Childhood Onset Recurrent Ischemic Stroke and Seizure are Associated with Mutation in *Adenosine Deaminase Type 2 (ADA2)* Gene. Annals of Indian Academy of Neurology. 2025 (Accepted).
- Detection of Common Deletion Mutations ($-\alpha^{3.7}$ and $-\alpha^{4.2}$ kb) in *HBA* gene and Genotype-Phenotype Correlation. Archives of Clinical and Biomedical Research. 2025. DOI:10.26502/acbr.50170444.

- Primary Dystonia and Hypoceruloplasminemia Caused by Digenic Mutations in *GNAO1* and *CP* Gene from Eastern India: A Case Report. International Journal of Clinical Studies & Medical Case Reports. 2025. DOI: 10.46998/IJCMCR.2025.50.001236.
- Arg4810Lys Mutation in RNF213 among Eastern Indian Non-MMD Ischemic Stroke Patients: A Genotype-Phenotype Correlation. Neurological Sciences. 2024. doi:10.1007/s10072-023-07051-w.
- Clinical implication of time of stroke among post-stroke survivors from eastern India: A circadian perspective. Neuromolecular Medicine. 2024. doi:10.1007/s12017-024-08808-y.
- Association of dopamine receptor D3 polymorphism with levodopa-induced dyskinesia: A study on Parkinson's disease patients from India. Neuroscience Letters. 2024. doi:10.1016/j.neulet.2024.137706.
- Secondary prevention with a structured semi-interactive stroke prevention package in INDIA (SPRINT INDIA): a multicentre, randomised controlled trial. *Lancet Glob Health*. 2023. doi:10.1016/S2214-109X(22)00544-7.
- Genetic Variations and Altered Blood mRNA Level of Circadian Genes and BDNF as Risk Factors of Post-Stroke Cognitive Impairment among Eastern Indians. Neuromolecular Medicine. 2023. doi:10.1007/s12017-023-08761-2.
- Evaluation of Apolipoprotein e4 allele as susceptible factor for neurodegenerative diseases among Eastern Indians. Austin Alzheimer's and Parkinson's Disease. 2023;6(2):1040.
- An Indian Young-onset Dementia with Parkinsonism with Double Heterozygous Mutations in ABCA7 and PRKN Identified through Whole-Exome Sequencing. Alzheimer Disease & Associated Disorders-An International Journal. 2023. doi:10.1097/WAD.0000000000000546.
- Genetic Polymorphisms in *DRD4* and Risk for Parkinson's Disease Among Eastern Indians. *Neurol India*. 2022. doi:10.4103/0028-3886.344670.
- Identification of GBA mutations among neurodegenerative disease patients from eastern India. Neuroscience Letters. 2021. doi:10.1016/j.neulet.2021.135816.
- The Role of the LRRK2 variant p.Gly2019Ser in Indian Parkinsonism patients. Indian Journal of Medical Research. 2020. doi:10.4103/ijmr.IJMR_25_18.
- Primary generalized dystonia due to TOR1A Δ GAG mutation in an Indian family with intrafamilial clinical heterogeneity. Neurology India. 2019. doi:10.4103/0028-3886.263172.
- Evaluation of *FGF20* variants for susceptibility to Parkinson's disease in Eastern Indians. Neuroscience Letters. 2018. doi:10.1016/j.neulet.2018.03.059.
- Evaluation of *PINK1* variants in Indian Parkinson's disease patients. Parkinsonism and Related Disorders. 2010. doi:10.1016/j.parkreldis.2009.10.005.
- Genetic landscape of the people of India: a canvas for disease gene exploration. Journal of Genetics. 2008. doi:10.1007/s12041-008-0002-x.
- *Parkin* Polymorphisms: Risk for Parkinson's disease in Indian Population. Clinical Genetics. 2007. doi:10.1111/j.1399-0004.2007.00878.x.
- Molecular pathogenesis of Parkinson's disease: Identification of mutations in the *Parkin* gene in Indian patients. Parkinsonism and Related Disorders. 2006. doi:10.1016/j.parkreldis.2006.04.005.

RESEARCH INTEREST:

- Genetic basis of Neurological Disorders (Stroke, Alzheimer's disease, Movement Disorders)
- Rare diseases, Non-Alcoholic Fatty Liver disease, Autism Spectrum Disorders

- Epigenetics
- Biomarker discovery
- Cognitive Neurosciences

EXPERTISE:

- Human molecular genetics and genomics with disease context (neurodegenerative, stroke, inherited disorders).
- Genetic epidemiology/association studies in Indian populations, especially Eastern Indian / Bengali ethnicity.
- Cognitive and clinical phenotyping along with genetic variation.
- Use of sequencing technologies, genotyping, and gene expression in clinical/population genetics

RESEARCH FUNDING

- Molecular Analysis of Risk Factors as Predictor of Post-Stroke Outcome: A Burden of West Bengal funded by Department of Science & Technology and Biotechnology, Govt. of West Bengal (Project Cost: Rs.24,94,800) as Principal Investigator.
- Evaluation of genetic variants, diabetes and time of stroke as a predictor of variable post-stroke outcome among Indians through an extensive molecular analysis funded by Department of Science & Technology, Govt. of India (Project Cost: Rs.42,63,240) as Mentor.
- Unravelling the epigenetic regulation responsible for regenerative neurogenesis and axonal regrowth after spinal cord injury in zebrafish funded by SERB, Govt. of India (Project Cost Rs.40,80,000) as Co-Principal Investigator.
- Understanding the role of Genetics and Epigenetics of BDNF on Post-stroke Cognitive Impairment among eastern Indians-Molecular and *in-vivo* approach funded by Department of Science & Technology-Cognitive Science Research Initiative, Govt. of India (Project Cost Rs. 21,99,744) as Mentor.
- Evaluation of genetic factors associated with cognitive impairment in Parkinson's disease funded by Department of Science & Technology-Cognitive Science Research Initiative, Govt. of India (Project Cost Rs.22,08,800) as Principal Investigator.
- Role of Genetic Factors in Dementia funded by Department of Science & Technology-Cognitive Science Research Initiative, Govt. of India (Project Cost Rs.18,92,000) Principal Investigator.

SCIENTIFIC BODIES ASSOCIATED WITH

- Life member of the Indian Academy of Neuroscience
- Member of the Indian Society of Human Genetics
- Life member of Calcutta Consortium of Human Genetics, and
- Life member of Alzheimer's & Related Disorders Society of India.